

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

DRAFT

Conditional Major / Construction / Operating

Permit: F-07-043

Dickerson Lumber Company Inc.

Glasgow, KY 42141

Aug 14, 2007

Esmail Hassanpour, Reviewer

SOURCE ID: 21-009-00009

AGENCY INTEREST: 69

ACTIVITY: APE20070001

SOURCE DESCRIPTION:

The Dickerson Lumber Company Inc. applied to the Kentucky Division for Air Quality on June 15, 2007, to construct and operate a lumber company in Burkesville Road in Glasgow, KY. The source currently has operating permit (O-84-224) which is general Saw Mills and planing mills. The facility processes round oak logs into pallets and rough lumber. The manufacturing process consists of sawing, edging, notching, kiln drying, and pallet construction for the consumer. Particulate material emissions generated from the various machining equipment are collected into one of two cyclones and loaded into trailers for sale. Wood waste not sold is used to fuel the on-site wood waste boiler that serves the dry kiln operation. A scragg mill rated at 5000 board feet/hour (10 Tons/hour), constructed in January 2007, is being added to the permitted units for the source.

COMMENTS:

APPLICABLE REGULATIONS:

For Emission Unit 01-03:

401 KAR 59:010, New Process Operations, applicable to an emission unit that commenced on or after July 2, 1975.

For Emission Unit 04-06:

401 KAR 59:015, New indirect heat exchangers, for units less than 250 MMBtu/hour commenced on or after April 9, 1972.

For Emission Unit 07:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

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Emission Point 01: Sawmill

The saw mill is receives round oak logs and processes them into rough saw lumber. The sawmill is rated at 7000 board feet per hour (14 tons/hour). The large wood waste material generated from this activity is processed through the chipper prior to being loaded into a trailer. Control equipment for this emission point is a cyclone and rated at 80% efficiency. The control device is considered as an integral part of the physical and operational design of the sawmill

Pursuant to 401 KAR 59:010 Section 3(2), particulate matter emissions into the open air shall not exceed 18.43 pounds per hour based on a three-hour average.

Pursuant to 401 KAR 59:010, Section 3(1) any continuous emission(s) into the open air shall not equal or exceed twenty (20) percent opacity based on a six-minute average.

Emission Point 02: Scragg Mill

The Scragg mill receives rejected boards from the sawmill and processes them into usable rough sawn lumber. The Scragg mill is rated at 5000 board feet per hour (10 tons/hour). The large wood waste material generated from this activity is processed through the same chipper as emission point 03 prior to being loaded into a trailer. The control equipment for this emission point is the same cyclone for emission point 03 and is rated 80% efficiency. The control device is considered as an integral part of the physical and operational design of the scragg mill.

Pursuant to 401 KAR 59:010 Section 3(2), particulate matter emissions into the open air shall not exceed 14.97 pounds per hour based on a three-hour average.

Pursuant to 401 KAR 59:010, Section 3(1) any continuous emission(s) into the open air shall not equal or exceed twenty (20) percent opacity based on a six-minute average.

Emission Point 03: Pallet Mill

The pallet mill machines rough sawn lumber and processes them into pallets. The pallet mill is rated at 6000 board feet per hour (12 tons/hour). The large wood waste blocks generated from this activity are sold to an outside company. The small chips and dust generated is processed through a separate dedicated cyclone rated at 80% efficiency prior to being loaded into a trailer. The control device is considered as an integral part of the physical and operational design of the pallet mill.

Pursuant to 401 KAR 59:010 Section 3(2), particulate matter emissions into the open air shall not exceed 16.75 pounds per hour based on a three-hour average.

Pursuant to 401 KAR 59:010, Section 3(1) any continuous emission(s) into the open air shall not equal or exceed twenty (20) percent opacity based on a six-minute average.

Emission Point 04-05: Two 7.24 MMBtu/hr Wood Boilers

Two 7.24 MMBtu/hr rated wood waste fired indirect heat exchangers are used to provide steam heat for kiln dried lumber.

Pursuant to 401 KAR 59:015, Section 4(1)(c), particulate emissions shall not exceed 0.51 lb/MMBtu for emission units 04 and 05, each based on a three-hour average.

Pursuant to 401 KAR 59:015 Section 4 (2), visible emissions shall not exceed twenty (20) percent opacity except:

- (a) that a maximum of forty (40) percent opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning of the fire box or blowing soot;
- (b) for emissions during building a new fire for the period required to bring up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations

Pursuant to 401 KAR 59:015, Section 5(1)(c) sulfur dioxide emissions shall not exceed 4.24lb/MMBtu, each for emission units 04-05 based on a twenty-four- hour average while burning wood.

Emission Point 06: One 10.9 MMBtu/hr Wood Boiler

The 10.9 MMBtu/hr rated wood waste fired indirect heat exchanger is also used to provide steam heat for kiln dried lumber.

Pursuant to 401 KAR 59:015, Section 4(1)(c), particulate emissions shall not exceed 0.54 lb/MMBtu for emission unit 06, based on a three-hour average.

Pursuant to 401 KAR 59:015, Section 5(1)(c), sulfur dioxide emissions shall not exceed 4.81lb/MMBtu for emission unit 06 based on a twenty-four- hour average while burning wood.

Pursuant to 401 KAR 59:015 Section 4 (2), visible emissions shall not exceed twenty (20) percent opacity except:

- (a) that a maximum of forty (40) percent opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning of the fire box or blowing soot;
- (b) for emissions during building a new fire for the period required to bring up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations

Emission Point 07: Haul Roads and Yard Area

The source has a combined haul road and yard area of approximately 200 yards in length that is primarily used for moving raw lumber into the facility and finished pallets and rough lumber out of facility. Water spray is used to control the dust emissions.

Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

EMISSION AND OPERATING CAPS DESCRIPTION:

The source shall be limited to emissions less than 90 tons per year of any regulated air pollutant, to preclude the applicability of 401 KAR 52:020. The potential emissions of process particulate matter (PM) are more than 100 tons per year from the source operating at full capacity. However, the permittee decided to accept emission caps to stay under major source thresholds as defined in 401 KAR 52:030. Process PM is limited to less than 90 tons in any consecutive 12 months. Monthly PM emission shall be calculated by summing the emissions from all the PM generating sources. The annual emissions shall be calculated by adding monthly emissions to the previous 11 months' emissions.

PERIODIC MONITORING:

N/A

OPERATIONAL FLEXIBILITY:

N/A

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.